REMARKS

These remarks follow the order of the paragraphs of the office action. Relevant portions of the office action are shown indented and italicized.

Claims are further amended to better protect the invention and bring the application to allowance.

DETAILED ACTION

This is a Non-Final rejection in response to RCE filed on 05/06/2008; amendment/remarks filed 04/08/2008. Claims 1, 6-8, 12, 16-17 and 18-19 are currently pending. Claims 6,7, and 17 are withdrawn from examination due to Non-elected claims. Applicants have amended independent claims 1, 8 and 12, canceled claims 2-5, 9-1 1, 13-15 and 20. Effective tiling date is 03-24-2004, priority date 03-28-2003 (Assignee IBM).

It is noted claim 1 at Page 3, Line 6-> Page 4 Line 11 recites the transitional phrase "selecting.. group... consisting of" [emphasis added] is a closed term, which is often used in the claim drafting to signal "Markush group" that is by its nature closed, See MPEP 2111.03 [R-3] [Transitional Phrase] and also MPEP 2173.05(h) [Alternatives Limitation] "MARKUSH GROUPS". Thus Examiner is selected one from the groups as described in the "Markush groups" of claim 1 at Page 3, Line 64 Page 4 Line 11 against the prior art, as stated below.

In response, the applicants respectfully states that as a result of a telephone conversation claim 1 is amended to overcome its being handled as a Markush group to better protect the present invention and bring it to allowance.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1 and 12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 1:

Claim 1 recites a "processing apparatus" comprising a plurality of means for perform various function to digest and display document, when said layout being too large to fit in a display screen of a display device. The Examiner notes the disclosure of the present invention expressly states "the information processing apparatus comprise means for changing the display content of the digest screen based on an operation of a user" [emphasis added] see Specification—. Page 11, Lines 1-7. Also see applicant's disclosure at page 49 lines 11-18, which is stated "a combination of hardware and software Any kind of computer system - or other apparatus adapted for carrying out the methods and/or functions described herein - is suitable." [Emphasis added]; the Examiner interprets all functions described herein may be performed in either hardware or software. Thus, for purposes of examination, the examiner interprets the recited "processing apparatus" comprising a plurality of means for perform various function to digest and display document, when said layout being too large to fit in a display screen of a display device to comprise only computer software.
Accordingly, the "processing apparatus" recited in Claim 1 is software per so.

Claim 12:

Claim 12 recites a "program" comprising code for perform various function to digest and display document, when said layout being too large to fit in a display screen of a display device. The Examiner interprets the recited "program" comprising code for perform various function to digest and display document, when said layout being too large to fit in a display screen comprise only computer software. Accordingly, the "program" comprising code" recited in Claim 12 is software per se.

Computer software is not a process, a machine, a manufacture or a composition of matter. Accordingly, Claims 1 and 12 fail to recite statutory subject matter, as defined in 35 U.S.C. 101.

In the interest of compact prosecution, the application is further examined against the prior art, as stated below, upon the assumption that the applicants may overcome the above stated rejections under 35 U.S.C. 101.

In response, the applicants respectfully states that claims 1 and !2 are amended to overcome the rejections under 35 U.S.C. 101, each is clearly directed to statutory subject matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1,8,12,16, and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al. US 2001 0054049A1 filed 12-19-2000 (hereinafter Maeda), in view of Chen et al. US 20020078097A1 tiled 04-18-2001 (hereinafter Chen).

In response, applicants take exception with the alleged teaching and/or making obvious claims 1-5, 8-16, and 18-19, by Maeda and/or Chen In general, the present invention, claimed in Claims 1-20, provides:

> "Digest screen display content deciding means selects display elements belonging to respective regions of a document based on display priorities of the display elements, which are obtained by digest screen display priority information creating means, and decides selected display elements as display content of a digest screen under a condition where a total display area does not exceed a required display area. A merging relationship among the regions is set based on layout information for the regions, created by digest screen region layout information creating means. Display content deciding means decides the display content of a detail screen based on the merging relationship among the regions, and creates a digest of the detail screen based on control information created by control information creating means. Moreover, digest screen display content changing means changes the display content of the digest screen in response to an operation of a user."

Thus, the present invention provides methods and apparatus to display elements belonging to respective regions of a document based on display priorities of the display elements, which are obtained by digest screen display priority information creating means, and decides selected display elements as display content of a digest screen under a condition where a total display area does not exceed a required display area, using a merging relationship among the regions. This is apparently not made obvious by the combined art of Maeda and/or Chen

The cited art to Maeda, US Patent application 20010054049A1, filed: December 19, 2000, is entitled: "Information processing system, proxy server, web page display method, storage medium, and program transmission apparatus". The Maeda abstract reads:

> "The present invention provides a means to display the contents of a document using a selected display condition, while preserving the layout of the document. It provides an information processing system comprising: a web browser for displaying a document having a predetermined layout; and a display controller for controlling a method used by the web browser to display the document. The display controller includes: a layout structure analyzer for analyzing the structure of the layout for the document; a region arrangement determiner for dividing a web page under a desired display condition, whereby the contents of the page are displayed in order to display the document in accordance with regions that are allocated and that reflect the structure of the document layout obtained by the layout structure analyzer; and an intra-region contents determiner for determining which contents of the document are to be displayed inside each of the allocated regions that are determined by the region arrangement determiner".

Thus Maeda provides a means to display the contents of a document using a selected display condition, while preserving the layout of the document. It provides an information processing system comprising: a web browser for displaying a document having a predetermined layout; and a display controller for controlling a method used by the web browser to display the document.

The cited art to Chen , US Patent Application: 20020078097A1, filed: April 18, 2001 is entitled: "System for automatically allocating layout and the allocation method thereof ". The Chen abstract reads:

> "A system for automatically allocating a layout suitable for a web page. The system of the present invention utilizes an editing unit provided with a layout template having a plurality of display areas for inputting data and an integrating unit for integrating display areas that contain data with adjacent display areas that do not contain data. The systems can also include a data unit for providing a plurality of data to input into the display areas,

a previewing unit with an integrated layout, and a memory unit for storing the integrated layout. The integration unit determines whether display areas adjacent to a selected display area contain data. If not, the display areas are merged".

Chen provides a system for automatically allocating a layout suitable for a web page and utilizes an editing unit provided with a layout template having a plurality of display areas for inputting data and an integrating unit for integrating display areas that contain data with adjacent display areas that do not contain data. This does support Maeda in making Claims 1-5, 8-16, and 18-19 obvious. Thus Claims 1-5, 8-16, and 18-19 are allowable over Maeda and/or Chen

Regarding independent claim 1,

Maeda teaches:

An information processing apparatus comprising means for creating a digest of a document a layout of which is determined, when said layout being too large to fit in a display screen ot a display device or when a document reader requires said document to be zoomed for reading characters displayed on the display device, the document including a plurality of regions, each region including one or more display elements, the means for creating comprising:

(See Maeda fig. 1 and para 13-15, discloses an information processing terminal, includes web browser, and display controller (for analyzing the structure of the layout of the document, a region arrangement) to display the contents of a document using a selected display condition, such as a desired font size or a desired line space or character space, while preserving the layout of the document as well as to edit the contents of the document, when it is enlarged and displayed, so that important information in the document survives.

Also, see Maeda para 89, disclose the web browser 10 that employs the DOM tree automatically converts the HTML document into the tree, the obtained tree structure is merely be fetched by the layout structure analyzer 21.

Using the broadest reason able interpretation, the examiner reads the claimed creating a digest of a document as equivalent to analyzing the structure of the layout of the document, a region arrangement as taught by Maeda, and also see applicants' current disclosure at para 6, "method for creating a digest of the web page, in which a layout of the Web page is automatically analyzed based on tags of an HTML (refer to Patent Document 1),")

means for selecting the display elements based on display priorities of the display elements, and for deciding all of selected display elements as a display content of a digest screen under a condition where a total display area of all of the selected display elements does not exceed a required display area;

(See Maeda para 106, provides means to display the contents of a document using a selected display condition.

Also, see Maeda Fig. 15 and para 118, displaying all the characters in "chapter 1," which is the most important, in the contents of the HTML tag <Hi> of the target node,

Also, see Maeda Fig. 16 and para 119, displaying "chapter 1" and "chapter 2," which are the most important contents of the HTML tags <Hi> of the two target nodes,

Also, see Maeda Fig. 18 and para 121, showing nodes that are currently established as assigned regions, and the rectangular areas that are represented by the nodes. By referring to FIG. 18, the layout of the web page is determined using three assigned regions, Also, see Maeda para 81, discloses the elements wherein a display condition designated by a user. As a result, there is no deterioration of the layout of the web page.

Also, see Maeda fig. 1 and para 13-15, discloses an information processing terminal, includes web browser, and display controller (for analyzing the structure of the layout of the document, a region arrangement) to display the contents of a document using a selected display condition, such as a desired font size or a desired line space or character space, while preserving the layout of the document as well as to edit the contents of the document, when it is enlarged and displayed, so that important information in the document survives. Using broadest reasonable interpretation, the examiner equates the claimed condition where a total display area of all of the selected display elements does not exceed a required display area as equivalent to display controller (for analyzing the structure of the layout of the document, a region arrangement) to display the contents of a document using a selected display condition, such as a desired font size or a desired line space or character space, while reserving the layout of the document, and Fig. 15-18 as taught by Maeda.)

and means for ensuring access to information lost by creating the digest and ensuring said digest fits optimally on said display device.

(See Maeda fig. 1 and para 13-15, discloses an information processing terminal, includes web browser, and display controller (for analyzing the structure of the layout of the document, a region arrangement) to display the contents of a document using a selected display condition, such as a desired font size or a desired line space or character space, while preserving the layout of the document as well as to edit the contents of the document, when it is enlarged and displayed, so that important information in the document survives.

Also, see Maeda para 81, discloses the elements wherein a display condition designated by a user. As a result, there is no deterioration of the layout of the web page.)

means for deciding, as a display content of a detail screen, a region group including the regions displayed on the digest screen, and means for creating control information for controlling a display of the detail screen, wherein the means for deciding the display content of the detail screen creates a digest of the detail screen based on the control information when the region group is too large to fit in the required display area.

(See Maeda fig. 1 and para 13-15, discloses an information processing terminal, includes web browser, and display controller (for analyzing the structure of the layout of the document, a region arrangement) to display the contents of a document using a selected display condition, such as a desired font size or a desired line space or character space, while preserving the layout of the document as well as to edit the contents of the document, when it is enlarged and displayed, so that important information in the document survives.
Also, see Maeda para 89, disclose the web browser 10 that employs the DOM tree automatically converts the HTML document into the tree, the obtained tree structure is merely be fetched by the layout structure analyzer 21.

Also, see Maeda para 81, discloses the elements wherein a display condition designated by a user. As a result, there is no deterioration of the layout of the web page.)

wherein the means for deciding the display content of the digest screen further includes means for changing the display content of the digest screen based on an operation of a user;

(See Maeda para 89, disclose the web browser 10 that employs the DOM tree automatically converts the HTML document into the tree, the obtained tree structure is merely be fetched by the layout structure analyzer 21.

Also, see Maeda para 81, discloses the elements wherein a display condition designated by a user. As a result, there is no deterioration of the layout of the web page.)

wherein the changing means includes means for automatically changing the display content of the digest screen, accompanying the operation ot the user.

(See Maeda para 89, disclose the web browser 10 that employs the DOM tree automatically converts the HTML document into the tree, the obtained tree structure is merely be fetched by the layout structure analyzer 21.
Also, see Maeda para 81, discloses the elements wherein a display condition designated by a user. As a result, there is no deterioration of the layout of the web page. Using the broadest reasonable interpretation, it is noted the claimed the display content of the digest screen is the web browser 10 that employs the DOM tree automatically converts

the HTML document into the tree, the obtained tree structure is merely be fetched by the layout structure analyzer 21 as taught by Maeda.)

further comprising selective implemented performance capability of employing any combination of means taken from a group of means consisting of: means for creating control information for controlling a display of the detail screen, wherein the means for deciding the display content of the detail screen creates a digest of the detail screen based on the control information when the region group is too large to fit in the required display area:

(See Maeda fig. 1 and para 13-15, discloses an information processing terminal, includes web browser, and display controller (for analyzing the structure of the layout of the document, a region arrangement) to display the contents of a document using a selected display condition, such as a desired font size or a desired line space or character space, while preserving the layout of the document as well as to edit the contents of the document, when it is enlarged and displayed, so that important information in the document survives.
Also, see Maeda para 89, disclose the web browser 10 that employs the DOM tree automatically converts the HTML document into the tree, the obtained tree structure is merely be fetched by the layout structure analyzer 21.

Also, see Maeda para 81, discloses the elements wherein a display condition designated by a user. As a result, there is no deterioration of the layout of the web page.)

In addition. Maeda does not explicitly teach, but Chen teaches:

means for setting a merging relationship among the regions by deciding a merging region, with which a region not being displayed on the digest screen is merged, from among regions displayed on the digest screen based on layout information for the regions in the document, all of the regions being included in the document; and the region merged with the displayed regions in response to that a detail display of the displayed regions is required,

(See Chen fig. 3, 4a-c and para 10-15, shows the merging process, wherein the first display area is merging with the second display area it the second display area does not contain data an intermediate data stream in name/value pair format; determining whether a third display area adjacent to the first display area in the vertical direction contains data; and determining whether a third display area adjacent to the first display area in the vertical direction contains data; and merging the first display area with the third display area if the second display area does not contain data.

Also, see Chen para 36-51; disclose the details of the merging process of Fig. 3, and Fig. 4a-c. Using the broadest reasonable interpretation, it is noted the claimed the digest screen is merged is the merging process (see fig. 3, 4a-c) as taught by Chen.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Maeda's information processing terminal, provides a means to display the contents of a document using a selected display condition, while preserving the layout of the document, to include a means of setting a merging relationship among the regions by deciding a merging region, with which a region not being displayed on the digest screen is merged, from among regions displayed on the digest screen based on layout information for the regions in the document, all of the regions being included in the document as taught by Chen. One of ordinary skill in the art would have been motivated to perform such a modification, because Maeda and Chen are analogous art, since they are from the same field of allocating, and merging lay out of web document without deterioration of the layout of the web page, and provides the followings advantages: The contents of a document can be displayed in accordance with a desired display condition (font size, line spacing, character spacing, etc.), while the layout of the document is preserved; Further, when characters are enlarged and displayed while the layout is being preserved, the display contents can be edited without important information in the document being erased (see Maeda para 162-163).

Applicants repeat the copied cited portions to actually show again the apparent lack of teaching of the alleged claimed material in Maeda with or without Chen of the elements of Claims 1-5, 8-16, and 18-19.

The cited Maeda portion Fig 1 reads:

> [0016] FIG. 1 is a diagram for explaining an overall arrangement of an information processing terminal that comprises a display controller 20 according to one embodiment of the present invention.

The cited Maeda portion para 13-15 reads:

> [0013] In order to resolve the above shortcomings, it is one aspect of the present invention to display the contents of a document using a selected display condition, such as a desired font size or a desired line space or character space, while preserving the layout of the document.
>
> [0014] It is another aspect of the present invention to edit the contents of the document, when it is enlarged and displayed, so that important information in the document survives.

[0015] To achieve the above aspects of the invention, an information processing system comprises: document display means for displaying a document having a predetermined layout; and display control means for controlling a method used by the document display means to display the document. The display control means include a layout structure analyzer for analyzing the structure of the layout of the document, a region arrangement determiner for dividing a web page, under a desired display condition whereby the contents of the page are displayed, in order to display the document in accordance with regions that are allocated and that reflect the structure of the document layout that is obtained by the layout structure analyzer, and an intra-region contents determiner for determining which contents of the document are to be displayed inside each of the allocated regions that are determined by the region arrangement determiner.

The Office Communication continues.

Also, see Maeda para 89, disclose the web browser 10 that employs the DOM tree automatically converts the HTML document into the tree, the obtained tree structure is merely be fetched by the layout structure analyzer 21.

The cited Maeda portion para 89 reads:

[0089] The DOM tree (Document Object Model tree) for which w3c (world wide web consortium) is determined to be the standard, can be employed for the Internet explorer and other well-known web browsers in order to generate as nodes the tree structure that employs the HTML tags. Since the web browser 10 that employs the DOM tree automatically converts the HTML document into the tree, the obtained tree structure is merely be fetched by the layout structure analyzer 21. It should be noted, however, that a browser that can not employ a DOM tree can generate the same tree structure in accordance with the relationships between the HTML tags.

The Office Communication continues.

Using the broadest reason able interpretation, the examiner reads the claimed ***creating a digest of a document*** *as equivalent to analyzing the structure of the layout of the document, a region arrangement as taught by Maeda, and also see applicants' current disclosure at para 6, "method for creating a digest of the web page, in which a*

layout of the Web page is automatically analyzed based on tags of an HTML (refer to Patent Document 1),")

means for selecting the display elements based on display priorities of the display elements, and for deciding all of selected displayelements as a display content of a digest screen under a condition where a total display area of all of the selected display elements does not exceed a required display area;

(See Maeda para 106, provides means to display the contents of a document using a selected display condition.

The cited Maeda portion para 106 reads

[0106] If, to display the contents of the web page, a user designates a font size and a line space that are larger than those designated by a web page creator, all of the document that is controlled by the HTML tag can not be displayed within the rectangular area of the HTML tag. Thus, an assigned region should be large enough to permit the complete display in it of the most important information in the document, so that the user can easily apprehend the intent of the contents displayed in the pertinent assigned region. Therefore, nodes are selected that correspond to the HTML tags that have appropriately sized rectangle areas, while the hierarchical tree structure is traced down, beginning at the root node. That is, since in the tree structure the rectangle that the parent node represents on the screen includes all the rectangles that child nodes represent on the screen, the tracing of the tree structure from the parent to the children corresponds to the division of the rectangles on the screen.

The Office Communication continues.

Also, see Maeda Fig. 15 and para 118, displaying all the characters in "chapter 1," which is the most important, in the contents of the HTML tag <Hi> of the target node,

The cited Maeda portion Fig. 15 reads

[0030] FIG. 15 is a diagram showing proposed assigned regions and a displayed web page, while specifically showing proposed assigned regions when a root node is used as a target, and a rectangular area represented by the root node.

The cited Maeda portion para 118 reads

> [0118] FIG. 15 is a diagram showing the proposed assigned regions, as viewed from the root node, and the rectangular area represented by the root node, which is a target node. While referring to FIG. 15, overall, the rectangular area of the target node (root node) occupies the screen of a web page, and all the characters in "chapter 1," which is the most important, in the contents of the HTML tag <H1> of the target node are displayed. Therefore, for the root node, program control advances through steps 1401, 1403 and 1405 in FIG. 14 to step 1408, and a check is performed to determine whether the two <H1> nodes, which are child nodes of the root node, can display the most important contents. Since the child nodes can display the most important contents, as will be described later program control advances to step 1410, whereat the process is performed for the two <H1> nodes, the child nodes.

Also, see Maeda Fig. 16 and para 119, displaying "chapter 1" and "chapter 2," which are the most important contents of the HTML tags <Hi> of the two target nodes,

The cited Maeda portion Fig. 16 reads

> [0031] FIG. 16 is a diagram showing proposed assigned regions and a displayed web page, while specifically showing proposed assigned regions when nodes at the second level are used as targets, and rectangular areas represented by the pertinent nodes.

The cited Maeda portion para 119 reads

> [0119] In FIG. 16, two nodes that are proposed assigned regions and the rectangular area represented by two target nodes are shown when, in the state in FIG. 15, the target node is shifted to the node immediately beneath the root node. While referring to FIG. 15, it is apparent that all the characters of "chapter 1" and "chapter 2," which are the most important contents of the HTML tags <H1> of the two target nodes, are displayed. When the process in FIG. 14 is performed for the two target nodes in FIG. 16, program control advances through steps 1401, 1403 and 1405 to step 1408. Then, a check is performed to determine whether two child nodes at the <H1> node on the chapter 1 side and two child nodes at the <H1> node on the chapter 2 side can display the most important contents. As will be described later, on the chapter 1 side, the target nodes can be shifted to the two

child nodes, while on the chapter 2 side, the target nodes can not be shifted to the two child nodes.

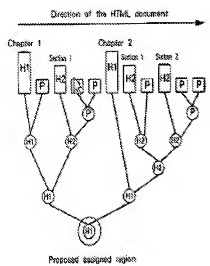
Also, see Maeda Fig. 18 and para 121, showing nodes that are currently established as assigned regions, and the rectangular areas that are represented by the nodes. By referring to FIG. 18, the layout of the web page is determined using three assigned regions

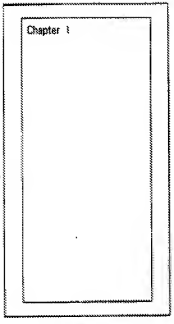
The cited Maeda portion Fig. 18 reads:

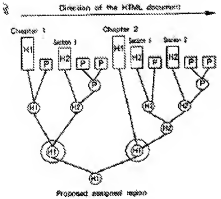
[0033] FIG. 18 is a diagram showing proposed assigned regions and a displayed web page, while specifically showing proposed assigned regions that are finally obtained by the region arrangement determiner 22, and rectangular areas represented by the nodes.

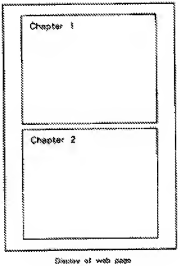
The cited Maeda portion para 121 reads:

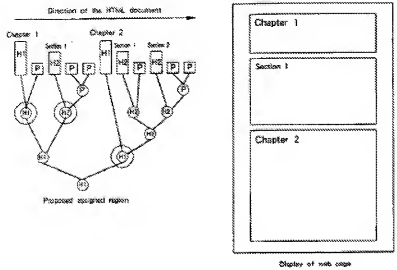
[0121] While an explanation is not given for the further processing, on the chapter 1 side the assigned region is also established for the nodes of the HTML tags <H1> and <H2> at the third level. FIG. 18 is a diagram showing nodes that are currently established as assigned regions, and the rectangular areas that are represented by the nodes. By referring to FIG. 18, the layout of the web page is determined using three assigned regions.,


Direction of the HTML document
Chapter 1
Chapter 2
Section 1
Section 1
Section 2
H1
H2
P
Proposed assigned region


Chapter 1
Display of web page


Direction of the HTML document
Chapter 1
Chapter 2
Section 1
Section 1
Section 2
H1
H2
P
Proposed assigned region


Chapter 1
Chapter 2
Display of web page



Also, see Maeda para 81, discloses the elements wherein a display condition designated by a user. As a result, there is no deterioration of the layout of the web page.

The cited Maeda portion para 81 reads:

> [0081] The display controller 20 controls the display of the web page by the web browser 10. Specifically, the elements, such as characters and images, that constitute the web page are displayed based on a display condition designated by a user, regardless of the original display condition provided for the pertinent web page, i.e., the display condition designated by the producer of the pertinent web page. The display condition here includes the font size, the line spacing or the character spacing. To display the web page, the web page is divided into several blocks, the locations and the sizes of the blocks are fixed, and only the display condition of the elements is changed. As a result, there is no deterioration of the layout of the web page.

Also, see Maeda fig. 1 and para 13-15, discloses an information processing terminal, includes web browser, and display controller (for analyzing the structure of the layout of the document, a region arrangement) to display the contents of a document using a selected display condition, such as a desired font size or a desired line space or character space, while preserving the layout of the document as well as to edit the contents of the document, when it is enlarged and displayed, so that important information in the document survives. Using broadest reasonable interpretation, the examiner equates the claimed ***condition where a total display area of all of the selected display elements does not exceed a required display area*** *as equivalent to display controller (for analyzing the structure of the layout of the document, a region arrangement) to display the contents of a document using a selected display condition, such as a desired font size or a desired line space or character space, while preserving the layout of the document, and Fig. 15-18 as taught by Maeda.)*

The cited Maeda portion fig. 1 and para 13-15 reads as stated above.

The cited Maeda portion fig. 1 and para 15-18 reads:

[0015] To achieve the above aspects of the invention, an information processing system comprises: document display means for displaying a document having a predetermined layout; and display control means for controlling a method used by the document display means to display the document. The display control means include a layout structure analyzer for analyzing the structure of the layout of the document, a region arrangement determiner for dividing a web page, under a desired display condition whereby the contents of the page are displayed, in order to display the document in accordance with regions that are allocated and that reflect the structure of the document layout that is obtained by the layout structure analyzer, and an intra-region contents determiner for determining which contents of the document are to be displayed inside each of the allocated regions that are determined by the region arrangement determiner.

BRIEF DESCRIPTION OF THE DRAWINGS

[0016] FIG. 1 is a diagram for explaining an overall arrangement of an information processing terminal that comprises a display controller 20 according to one embodiment of the present invention.

[0017] FIG. 2 is a diagram for explaining an arrangement of the display controller 20 of the embodiment.

[0018] FIG. 3 is a diagram showing a source list for an HTML document in which HTML tags are written and an example display of the HTML document.

and means for ensuring access to information lost by creating the digest and ensuring said digest fits optimally on said display device.

(See Maeda fig. 1 and para 13-15, *discloses an information processing terminal,* ***includes web browser, and display controller (for analyzing the structure of the layout of the document, a*** *region arrangement) to display the contents of a document using a* ***selected display condition, such as a desired font size or a desired line space or*** *character space, while preserving* ***the layout of*** *the document as well as to edit the contents of the document, when it is enlarged and displayed, so that important information in the document survives.*

The cited Maeda portion fig. 1 and para 13-15 reads as stated above.

Also, see Maeda para 81, discloses the elements wherein a display condition designated by a user. As a result, there is no deterioration of the layout of the web page.)

The cited Maeda portion para 81 reads as stated above.

In addition, Maeda does not explicitly teach, but Chen teaches:

means for setting a merging relationship among the regions by deciding a merging region, with which a region not being displayed on the digest screen is merged, from among regions displayed on the digest screen based on layout information for the regions in the document, all the regions being included in the document.

(See Chen fig. 3, 4a-c and para 10-15, shows the merging process, wherein the first display area is merging with the second display area if the second display area does not contain data an intermediate data stream in name/value pair format; determining whether a third display area adjacent to the first display area in the vertical direction contains data; and determining whether a third display area adjacent to the first display area in the vertical direction contains data; and merging the first display area with the third display area if the second display area does not contain data.

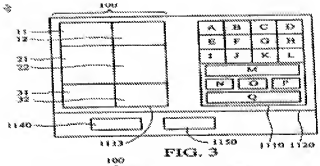


FIG. 3

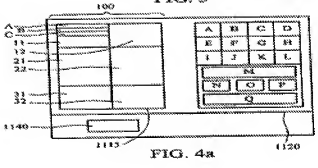


FIG. 4a

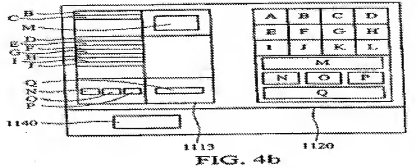


FIG. 4b

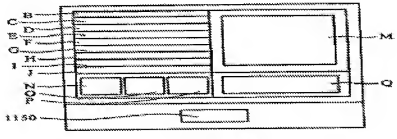


FIG. 4c

The cited Chen portion Fig. 4a-c reads as stated above.

The cited Chen portion para 10-15 reads:

[0010] Selecting a first display area;

[0011] Determining whether a second display area adjacent to the first display area in the horizontal direction contains data;

[0012] Merging the first display area with the second display area if the second display area does not contain data;

[0013] Determining whether a third display area adjacent to the first display area in the vertical direction contains data; and

[0014] Merging the first display area with the third display area if the second display area does not contain data.

[0015] The preferred embodiment of the present invention further comprises the steps of:

Also, see Chen para 36-51; disclose the details of the merging process of Fig. 3, and Fig. 4a-c. Using the broadest reasonable interpretation, it is noted the claimed ***digest screen is merged*** *is the merging process (see fig. 3, 4a-c) as taught by Chen.*

The cited Chen portion para 36-51 reads:

[0036] FIG. 3 illustrates editing unit 1120 of a preferred embodiment of the system of the present invention. On the left is a layout template 1113 having six display areas 11, 12, 21, 22, 31, and 32. On the right portion is data display area of the data unit 1110 for displaying data stored therein. In this embodiment, the data is represented by blocks "A.about.Q." The data can be, for example, words, pictures, icons, fields, and/or hyperlinks. And a button of the previewing unit 1140 at the lower left corner allows for the previewing of the integrated layout template.

[0037] A browser can be used to access the system for automatically allocating the layout of the present invention via the Internet. Alternately, the system of the present invention could be implemented as a program for use on a personal computer.

[0038] The operation of the system for automatically allocating layout of the present invention will now be described. A mouse click on a display area of the editing unit 1120 selects and marks this area as active. Then, data desired to be displayed is clicked in the data unit 1110 (for example, an image or an item of text). Clicked data is displayed in the active display area 11 at the left. Data can be removed from a display area by clicking on the data representation in the display area. A resulting web page after operation of the integrating unit is obtained by clicking the button of the previewing unit 1140. A web page can be saved by memory unit 1150. The resulting web page can posted on the network and viewed by other browsers.

[0039] FIGS. 4A-4C illustrate an example of the operation of the present invention. In FIG. 4A, a click on the display area 11 activates and marks the area. Then a click on text data "A", "B", and "C", respectively cause data A, B and C from the data unit 1110 to be displayed in display area 11.

[0040] In this example, data A from in display area 11 is clicked again, leaving only data B and C in display area 11 in FIG. 4B.

[0041] In FIG. 4B, a click on the display area 21 activates and marks the area. Then, a click on text data "D", "E", "F", "G", "H", "I", "J", "K" enters this data into display area 21. Using the same technique, image data "N", "O", and "P", is entered into display area 31, while business icon "M" is entered into display area 12 and hyperlink data "Q" is entered into display area 32 and then click the at the right.

[0042] In this example, data is input into five display areas "11","12", "21", "22", "31", "32". Display area "22" is empty.

[0043] By clicking the button of previewing unit 1140, the steps display areas are integrated, and a resulting page is generated, as shown in FIG. 4C. The resulting page can be saved by clicking the button of the memory unit 1150.

[0044] The operation of the automatic integration unit of the present invention applied display layout shown in FIG. 4B is described as follows.

[0045] First, the integration unit selects a first display area. In this example, the first area selected is the first row and the first column of the layout template 100, namely display area 11. Then the integration unit determines whether a second display area adjacent to the first in a horizontal direction contains data. In this example, this is display area 12, which does contain data. Therefore, the display areas are not merged. Then the integration unit determines whether a third display area adjacent to the first in a vertical direction

contains data. In this example, this is display area 21, which does contain data. Therefore, the display areas are not merged.

[0046] In this example, the integration unit then selects the display area in the first row and second column, namely display area 12, to be the next first display area. Then the integration unit determines whether a second display area adjacent to the first in a horizontal direction contains data. In this example, this is display area 11, which does contain data. Therefore, the display areas are not merged. Then the integration unit determines whether a third display area adjacent to the first in a vertical direction contains data. In this example, this is display area 22, which does not contain data. Therefore, display area 12 and display area 22 are merged. The resulting merged area is larger in size. In one implementation of this invention, the representation of data displayed in a display takes a size relative to the display area. Therefore, when two display areas are merged, the data contained therein is increased in side. In this example, image data M becomes larger in size to fill the merged display areas.

[0047] The integration unit then moves to the next row and selects display area 21 to be the first display area. Since display area 22 has been merged with display area 12, this area now contains data M. Display area 31 also contains data. Thus, the integration unit selects display area 22 to be the first display area. The same process is carried out, leading the integration unit to select display areas from the third row.

[0048] It is understood that the integration unit can select first display areas according to a left to right pattern or a right to left pattern, an up to down pattern or a down to up pattern, or any other pattern, including randomly selecting first display areas. Furthermore, it is understood that the selection of second display areas in a horizontal direction may be made to the left or the right of the first display area or both, and the selection of third display areas in a vertical direction may be made to the above or the below of the first display area or both. The operation of the integration unit can be implemented, for example, by a computer program.

[0049] FIG. 4C shows the resulting output page. The output page has a larger area since data display portion 200 need not be shown. Furthermore, display areas 12 and 22 have been merged. The page may now be saved in memory unit 1150.

[0050] The system and method for automatically allocating layout of the present invention quickly disposes data in an attractive layout without the need to rewrite HTML program or manually resize the display areas.

[0051] Finally, while the invention has been described by way of example and in terms of the preferred embodiment, it is to be understood that the invention is not limited to the disclosed embodiments. On the contrary, it is intended to cover various modifications and similar arrangements as would be apparent to those skilled in the art. Therefore, the scope of the appended claims should be accorded the broadest interpretation so as to encompass all such modifications and similar arrangements.

The cited Chen portion fig. 3, 4a-c reads as stated above.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Maeda's information processing terminal, provides a means to display the contents of a document using a selected display condition, while preserving the layout of the document, to include a means of setting a merging relationship among the regions by deciding a merging region, with which a region not being displayed on the digest screen is merged, from among regions displayed on the digest screen based on layout information for the regions in the document, all of the regions being included in the document as taught by Chen.

One of ordinary skill in the art would have been motivated to perform such a modification, because Maeda and Chen are analogous art, since they are from the same field of allocating, and merging lay out of web document without deterioration of the layout of the web page, and provides the followings advantages: The contents of a document can be displayed in accordance with a desired display condition (font size, line spacing, character spacing, etc.), while the layout of the document is preserved; Further, when characters are enlarged and displayed while the layout is being preserved, the display contents can be edited without important information in the document being erased (see Maeda para 162-163).

[The cited Maeda portion para 162-163 reads:

[0162] As is described above, according to the present invention, the contents of a document can be displayed in accordance with a desired display condition (font size, line spacing, character spacing, etc.), while the layout of the document is preserved

[0163] Further, when characters are enlarged and displayed while the layout is being preserved, the display contents can be edited without important information in the document being erased.

In response, the applicants respectfully states that the office communication has cited still further significant portions of Maeda a Chen in order to allege a showing of teaching or obviousness, which is apparently not conceived by Maeda and/or Chen.

However, in order to bring this application to allowance, claim 1 is amended to bring all the limitations of claims 2-5, and 20 into claim 1. This is particularly narrow when considering that the apparatus claimed must have selective performance capability of all the various means of claim 20. Claims 2-5, and 20 stand canceled. Thus, claim 1 is certainly allowable.

Regarding independent claim 8, is fully incorporated similar subject of claim 1 cited above, and is similarly rejected along the same rationale. Thus, Maeda and Chen disclose every limitation of Claim 8 and provide proper reasons to combine, as indicated in the above rejections for Claim 1.

In response, the applicants respectfully states that the office communication has cited significant portions of Maeda a Chen in order to allege a showing of teaching or obviousness, which is apparently not conceived by Maeda and/or Chen. However, in order to bring this application to allowance, claim 1 is amended to bring all the limitations of claims 9-11 into claim 8, and claim 8 is further amended herewith. Claims 9-11 are canceled. Thus, claim 8 is certainly allowable.

Regarding independent claim 12:

Claim 12 recites a program to implement a method recited in Claim 1. Thus, Thus, Maeda and Chen disclose every limitation of Claim 8 and provide proper reasons to combine, as indicated in the above rejections for Claim 1.

In addition, Maeda teaches:

a function to select the display elements based on display priorities of the display elements, and to decide all of selected display elements as a display content of a digest screen under a condition where a total display area of all of the selected display elements does not exceed a required display area;

(See the Abstract and at Para 60, Maeda discloses this limitation in that he intra- region contents determiner designates a priority order for control information for controlling the style of a document, and in accordance with the priority order, determines for each portion of the document, the contents that are to be displayed in a corresponding assigned region. This arrangement is particularly superior, as important information is not erased, even when not all the original data can be displayed in an assigned region because enlarged characters are employed.

See also fig. 1 and para 13-15, Maeda discloses an information processing terminal, includes web browser, and display controller (for analyzing the structure of the layout of the document, a region arrangement) to display the contents of a document using a selected display condition, such as a desired font size or a desired line space or character space, while preserving the layout of the document as well as to edit the contents of the document, when it is enlarged and displayed, so that important information in the document survives.

Also, see Maeda para 81, discloses the elements wherein a display condition designated by a user. As a result, there is no deterioration of the layout of the web page.)

In response, the applicants respectfully states that the office communication has cited significant portions of Maeda a Chen in order to allege a showing of teaching or obviousness, which is apparently not conceived by Maeda and/or Chen. However, in order to bring this application to allowance, claim 1 is amended to bring all the limitations of claims 13-15 into claim 8. Claims 13-15 are canceled. Thus, claim 12 is certainly allowable.

Claim 16:

Claim 16 recites a computer program product comprising a computer usable medium having computer readable program code embedded therein to perform the method recited in claim 1. Thus, Maeda and Chen disclose every limitation of Claim 16 and provide proper reasons to combine, as indicated in the above rejections for Claim 1 (See Maeda para 164, discloses hardware, software, or a combination of hardware and software. And also be embedded in a computer program product.)

In response, the applicants respectfully states that... ... .

It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon

for all that it would have reasonably suggested to one having ordinary skill in the art. See, MPEP 2123.

As previously submitted, the cited Maeda portion para 164 reads:

> [0164] The present invention can be realized in hardware, software, or a combination of hardware and software. The present invention can be realized in a centralized fashion in one computer system, or in a distributed fashion where different elements are spread across several interconnected computer systems. Any kind of computer system--or other apparatus adapted for carrying out the methods described herein--is suitable. A typical combination of hardware and software could be a general purpose computer system with a computer program that, when being loaded and executed, controls the computer system such that it carries out the methods described herein. The present invention can also be embedded in a computer program product, which comprises all the features enabling the implementation of the methods described herein, and which--when loaded in a computer system--is able to carry out these methods

*Regarding **claim 18:***

is directed to an article of manufacture comprising a computer usable medium having computer readable program code means embodied therein to perform the method recited in claim 8, and is similarly rejected along the same rational (See Maeda para 164, discloses hardware, software, or a combination of hardware and software. And also be embedded in a computer program product.)

The cited Maeda portion para 164 reads as stated above.

*Regarding **claim 19**:*

is directed to program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform the method recited in claim 8, and is similarly rejected along the same rational (See Maeda para 164, discloses

hardware, software, or a combination of hardware and software. And also be embedded in a computer program product.)

It is noted that any citations to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon

for all that it would have reasonably suggested to one having ordinary skill in the art. See, MPEP 2123.

The cited Maeda portion para 164 reads as stated above.

In response, the applicants respectfully states that although they still contend that the cited art fails to make claims 16, 18 and 19 obvious, these are all allowable at least because each depends on an allowable claim.

Response to Argument

Applicant's Remarks filed 04/08/2008 have been fully considered but they are moot in view of the new ground(s) of rejection.

This office action is a Non-Final Rejection in order to give the applicant sufficient opportunity to response to the new line of rejection.

It is noted, the examiner maintains Maeda in view of Chen references at this time; since Maeda et al. describes the short coming of an enlarged display specifies that a display screen, using the magnification tool is used only the data in a designated small area are magnified. However, the area within which magnified data are displayed is narrow. And it the size of the magnification area is increased, a portion hidden by the magnification area is expanded, and viewing the contents of an original display screen is difficult. That is, since with the conventional techniques only one part on a display screen is enlarged, it is difficult to obtain an overview of the data and to understand the contents- See Maeda at Page 1 Para 11-12. Thus, Maeda further discloses an information processing terminal, includes web browser, and display controller (for analyzing the structure of the layout of the document, a region arrangement) to display the contents of a document using a selected display condition, such as a desired font size or a desired line space or character space, while preserving the layout of the document as well as to edit the contents of the document, when it is enlarged and displayed, so that important information in the document survives-See Maeda fig. 1 and para 13-15.

Also Maeda further discloses the elements wherein a display condition designated by a user. As a result, there is no deterioration of the layout of the web page- See Maeda at Fig. 16 and at Para 81; and

in view of Chen et al. which shows the merging process, wherein the first display area is merging with the second display area if the second display area does not contain data an intermediate data stream in name/value pair format; determining whether a third display area adjacent to the first display area in the vertical direction contains data; and determining whether a third display area adjacent to the first display area in the vertical direction contains data; and merging the first display area with the third display area if the second display area does not contain data- See Chen fig. 3, 4a- c and para 10-15.
Beginning on page 11 of 46 of the Remarks (hereinafter the remarks), Applicant argues the following issues, have been fully considered but they are not persuasive.
The reason is set forth in the Final Office Action mailed 01/09/2008 and further view of the following:

It is noted applicants canceled claims 2-5, 9-11, 13-25, 20 and incorporated the canceled claims 2-5 and 20 into independent claim 1 (see paper filed 04/08/2008 and RCE filed 05/06/2008, which are accordingly rejected in the above rejection (see the above for details).

in addition, applicants argue, Maeda and Chen fail to teach, "Digest screen display content deciding means selects display elements belonging to respective regions of a document based on display priorities of the display elements, which are obtained by digest screen display priority information creating means, and decides elected display elements as display content of a digest screen under a condition where a total display area does not exceed a required display area. A merging relationship among the regions is set based on layout information for the regions, created by digest screen region layout information creating means. Display content deciding means decides the display content of a detail screen based on the merging relationship among the regions, and creates a digest of the detail screen based on control information created by control information creating means. Moreover, digest screen display content changing means changes the display content of the digest screen in response to an operation of a user." see the remarks pages 11-14.

The examiner respectfully disagrees, For purposes of responding to Applicant's argument, the examiner will assume

that Applicant is arguing for the patentability of Claim 1.

As discuss in the rejection above, Maeda et al. describes the short coming of an enlarged display specifies that a display screen, using the magnification tool is used only the data in a designated small area are magnified. However, the area within which magnified data are displayed is narrow. And if the size of the magnification area is increased, a portion hidden by the magnification area is expanded, and viewing the contents of an

original display screen is difficult. That is, since with the conventional techniques only one part on a display screen is enlarged, it is difficult to obtain an overview of the data and to understand the contents- See Maeda at Page 1 Para 11-12.

Thus, Maeda further discloses an information processing terminal, includes web browser, and display controller (for analyzing the structure of the layout of the document, a region arrangement) to display the contents of a document using a selected display condition, such as a desired font size or a desired line space or character space, while preserving the layout of the document as well as to edit the contents of the document, when it is enlarged and displayed, so that important information in the document survives-See Maeda fig. 1 and para 13-15. Also Maeda

further discloses the elements wherein a display condition designated by a user. As a result, there is no deterioration of the layout of the web page- See Maeda at Para 81.

Also Maeda at Fig. 19 and at Page 9 Para 111 discloses the determination condition, where the screen of the web page that is finally displayed can be controlled.

Referring to FIG. 19 as the size of an assigned region is reduced (the division of a rectangular area is continued as long as possible), the layout of the web page nears that of the original, but important contents of the original page tend to be missing. While referring to FIG. 19, on a screen whereon the rectangular area is divided into many segments, the overall ratio whereat the screen is occupied by "the first chapter" and "the second chapter" is close to that for the original pages.

On the other hand, if the size of an assigned region is maintained (the rectangular area is not divided into many segments), while important contents tend to be retained in a digest, the layout.

in view of Chen et al. which shows the merging process, wherein the first display area is merging with the second display area if the second display area does not contain data an intermediate data stream in name/value pair format; determining whether a third display area adjacent to the first display area in the vertical direction contains data; and determining whether a third display area adjacent to the first display area in the vertical direction contains data; and merging the first display area with the third display area if the second display area does not contain data- See Chen fig. 3, 4a- c and para 10-15.

This interpretation is supported by the Applicant's disclosure, which states, "a digest of a document, such as a Web page, the layout of which is predetermined by a creator" See Applicant Specs at Page 1 Lines 5-6, and also "creating a digest of a document the layout of which is determined . . . .the region merged with the displayed regions ... when the region group is too large to fit in the required display area" See the Applicant's Specs Page 12, Lines 10-22.

Thus Maeda and Chen clearly disclose digest screen display content deciding means selects display elements belonging to respective regions of a document based on display priorities of the display elements, which are obtained by digest screen display priority information creating means, and decides elected display elements as display content of a digest screen under a condition where a total display area does not exceed a required display area. A merging relationship among the regions is set based on layout

information for the regions, created by digest screen region layout information creating means. Display content deciding means decides the display content of a detail screen based on the merging relationship among the regions, and creates a digest of the detail screen based on control information created by control information creating means.

Moreover, digest screen display content changing means changes the display content of the digest screen in response to an operation of a user, that allows display the contents of a document using a selected display condition, such as a desired font size or a desired line space or character space, while preserving the layout of the document as well as to edit the contents of the document, when it is enlarged and displayed, so that important information in the document survives. Also, to address the remarks pages 14-29, applicant stated, "In response, the applicants respectfully states that the office communication has cited significant portions of Maeda a Chen in order to allege a showing of teaching or obviousness, which is apparently not conceived by Maeda and/or Chen.

However, in order to bring this application to allowance, claim 1 is amended to bring all the limitations of claims 2-5 and 20 into claim 1. This is particularly narrow when considering that the apparatus claimed must have selective performance capability of all the various means of claim 20. Claims 2-5 and 20 are canceled. Thus, claim 1 is certainly allowable."

The examiner respectfully disagrees,

to address the newly amended claim 1, the examiner introdiceing the new line of rejection, but mainain Maeda and Chen references, because Maeda and Chen clearly disclose digest screen display content deciding means selects display elements belonging to respective regions of a document based on display priorities of the display elements, which are obtained by digest screen display priority information creating means, and decides elected display elements as display content of a digest screen under a condition where a total display area does not exceed a required display area. A merging relationship among the regions is set based on layout information for the regions, created by digest screen region layout information creating means. Display content deciding means decides the display content of a detail screen based on the merging relationship among the regions, and creates a digest of the detail screen based on control information created by control information creating means. Moreover, digest screen display content changing means changes the display content of the digest screen in response to an operation of a user, that allows display the contents of a document using a selected display condition, such as a desired font size or a desired line space or character space, while preserving the layout of the document as well as to edit the contents of the document, when it is enlarged and displayed, so that important information in the document survives (See above rejection for more details).

Accordingly, for at least all the above evidence, and the current rejection, therefore the Examiner respectfully maintains the rejection of claims 1,8, 12 16 and 18- 19, at least at this time.

In response, the applicants respectfully states that although applicant maintain the stated lack of obviousness of the claimed invention in all claims 1-19 not canceled, claims were further amended in order to bring this application to allowance.

Please call the undersigned if any question remains regarding allowance of the application as per the MPEP before any FINAL communication.

Please charge any fee necessary to enter this paper to deposit account 50-0510.

Respectfully submitted,

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